

1033.689



PATENT SPECIFICATION

DRAWINGS ATTACHED

1033.689

Date of Application and filing Complete Specification: May 13, 1965.

No. 20238/65.

Application made in France (No. 977,173) on June 5, 1964.

Complete Specification Published: June 22, 1966.

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Index at acceptance:—F2 G (1F, 4J3, 10B, 21A, 25)

Int. Cl.:—F 06 I

COMPLETE SPECIFICATION

Improvements in or relating to Connecting Devices

We, GURTNER S.A. of 36 bis, Rue Guer-sant, Paris, France, a French Company, do hereby declare the invention, for which we pray that a Patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement:—

This invention relates to an intermediate connection by means of which taps, pressure reducing valves or other connection devices can be adapted without a screw thread to the threaded mouthpiece of bottles for liquefied gas or gas pipes.

This connection is more particularly designed to be fixed to apparatus comprising a connecting sleeve equipped with a locking device.

This type of sleeve which has a smooth bore is perforated laterally by two apertures arranged opposite each other and each containing a locking ball. A rotatable operating ring surrounds the connecting sleeve and is provided on the inside with two recesses or slopes.

In a certain angular position of the ring, the locking position, the two recesses or slopes are not situated opposite the lateral apertures of the sleeve, and the inner wall of the ring pushes the projecting balls inside the bore of the sleeve.

In another angular position of the ring, the locking position, the recesses or the deepest part of the slopes are situated opposite the lateral apertures of the sleeve and enable the balls to withdraw so that they do not project into the bore of the sleeve. Starting from the bottom of the sleeve, a cylindrical nipple co-axial with the sleeve is traversed by an axial duct for the passage of gas.

The intermediate connection according to the invention comprises an axial duct and has at one of its ends a screw thread corresponding to the threading of the mouthpiece of the bottle or pipe.

The other end, outwardly cylindrical, has a

slightly smaller diameter than that of the bore of the connecting sleeve. In this cylindrical part is formed a circular recess into which the locking ball or balls of the connecting sleeve penetrate when the operating ring is turned into its locking position.

Annular packings are arranged one at the bottom of the screw-threaded part and the other at the end having the cylindrical part.

An embodiment of a connection according to the invention will now be described by way of example with reference to the accompanying drawings, in which:—

Figure 1 is a half side view of the connection;

Figure 2 is a section of the connection; and

Figure 3 is a view of the connection seen in direction of the arrow III in Figure 2.

The intermediate connection shown is of cast metal. Outwardly cylindrical, it is provided with ribs 1 to facilitate locking and un-locking. The other end has a circular groove 2 formed in the cylindrical part and co-operating, for the purpose of locking the apparatus (not shown), with the ball or balls of the sleeve of the latter. The diameter of the cylindrical part is so chosen that this part can easily be fitted into the bore of the sleeve. Two flattened portions 3 on either side of the cylindrical part correspond to the flattened portions provided in the bore of the sleeve and render the latter integral in its rotation with the connection.

The end of the connection opposite to that which comprises the circular groove 2 has an internal screw thread 4 the diameter and pitch of which correspond to those of the threaded mouthpiece of the bottle or pipe.

The connection is traversed by a duct 5 which opens at one end into the inner end of the threaded part 4 and at the other end into a cylindrical recess 7 designed to engage a cylindrical nipple which is in the bore of the sleeve.

A circular recess 8 formed in the cylin-

[Price 4s. 6d.]

dricul wall of the housing 7 contains a toroidal packing 9 designed to provide a seal between the nipple of the apparatus mounted on the connection and this cylindrical wall.

5 Another packing 10 is situated in an annular groove 11 formed at the inner end of the threaded part 4. It seals the latter against the mouthpiece (not shown) on to which the connection is screwed.

10 An additional metallic packing 6 may be provided as shown, if desired.

WHAT WE CLAIM IS

1. Intermediate connection having an axial passage, by means of which a device, for example a tap or pressure reducing valve provided with a connecting sleeve surrounded by a rotatable operating ring and comprising a bore, can be mounted on the threaded mouthpiece of a bottle of liquefied gas or of a gas pipe, whilst in the connecting sleeve is formed at least one aperture containing a ball held in engagement in the bore by the inner wall of the ring in one of the angular positions of the latter, that is the locking position, the ring being provided on its inner wall with at least one recess of sufficient depth to enable the ball

in another angular position of the ring, that is the unlocking position, to withdraw into this recess without projecting into the bore, the intermediate connection being characterised in that it comprises in one of its ends a screw thread corresponding to the thread of the mouthpiece and, externally at the other end, a cylindrical part the diameter of which corresponds to that of the bore of the connecting sleeve and in which is formed a circular groove into which the locking ball or balls may project, annular packings being provided at the base of the screw-threaded part and in the end comprising the cylindrical part in order to ensure a sealing fit between on the one hand the apparatus mounted on the intermediate connection and the latter and on the other hand the said connection and the threaded mouthpiece.

2. A connection substantially as herein described, with reference to the accompanying drawing.

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COMPLETE SPECIFICATION

1 SHEET

This drawing is a reproduction of
the Original on a reduced scale

